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PHYSICAL AND ANATOMICAL FEATURES OF RUBBER WOOD FROM THREE CULTIVARS

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Rubber wood from three cultivars (GI 1, MK 3/2 and GG 2) of *Hevea brasiliensis* from plantations in southern Kerala, India, established in 1963 was evaluated for physical and anatomical properties. Results from this preliminary study indicate that there are possible differences among cultivars in basic density and tension wood.

Key words : Density, Fibre length, *Hevea brasiliensis*, Rubber wood, Shrinkage, Tension wood.

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INTRODUCTION

Rubber plantations have become a major source of industrial timber in the rubber growing countries of South and South East Asia. Rubber wood products like furniture and cabinets have become popular in Europe, USA, Japan, *etc.* Even though rubber wood has high potential as a utility timber, it should be noted that rubber trees are primarily grown for latex. The properties of rubber wood have been adequately evaluated in India (Shukla and Lal, 1985; Kumala and Rao, 1993). However, cultivar difference in wood quality has not been adequately studied. This preliminary study was carried out to understand the differences in wood properties among three cultivars of rubber trees planted in southern Kerala, India.

MATERIALS AND METHODS

One tree each of three cultivars (GI 1, MK 3/2 and GG 2) from rubber plantations established in 1963 was felled and two discs at different height levels (0.3, 1.4 and 2.8 m) were collected. These trees had been tapped for latex. Out of the three cultivars, GG 2 was raised from seed and the other two, MK 3/2 and GI 1, from budgraft.

Density

Both air-dry (14% EMC) and basic density were measured on samples representing the outer 50 mm (radial position 1), the next 50 mm (radial position 2) and the remainder to the pith (position 3). Two diametrically opposite sectors were measured for each position on all discs. Disc density was calculated from the sectors as weight by volume.

Shrinkage

Shrinkage (longitudinal, radial, tangential, volumetric) was measured for each of the radial positions described above.

Fibre length

The discs removed at 2.8 m were used for the measurement of fibre length from three positions (inner, mid and outer radii) on the disc. The samples were macerated and length of fibres was meas